Wildlife Watchers

REPORT ON MONITORING

ISSUE 8 SPRING 2002

Long-term monitoring makes a difference

Some of Ontario's wildlife monitoring projects have been ongoing for years – and even decades. After many seasons of volunteer monitoring, volunteer wildlife monitors might legitimately wonder whether their significant investment of time and effort is really worthwhile. Some readers may recall that the Breeding Bird Survey started in 1966. Is anything new being learned after all these years of data collection? The answer is a resounding *Yes*.

Volunteers perform a crucial service in the implementation of wildlife monitoring programs. Many monitoring programs are labour intensive. Scientists and professional researchers simply could not cover enough ground (and water) or gather enough data without volunteers. As well, it is becoming clear that long-term data sets, *especially when gathered by the same individual over a number of years*, are of particular value in interpreting the ebb and flow of species' population trends.

Survey results sometimes vary dramatically from one year to the next and, if viewed in isolation, may lead to significantly different (and perhaps wrong) conclusions about a population's status. A longer time perspective provides a more accurate assessment of how a species is faring. Long-term data sets also provide fascinating glimpses into community dynamics, revealing patterns of disappearance-reappearance for some species and the apparent stability of others. Identifying the reasons behind these patterns can lead to important considerations for conserving species and their habitats.

Photo: Pete Ewins

Is anything new being learned after all these years of data collection?

Monitoring programs, including those highlighted in this newsletter, offer opportunities for volunteers to further the collective understanding of Ontario's wildlife. Despite the ongoing efforts of many dedicated observers, numerous gaps remain in our knowledge of species and their conservation. If you are already a Wildlife Watcher, keep the faith – your contributions increase in value over time. And if you're not already involved, perhaps it's time to choose a project that's right for you (see page 2)!

By Lyle Friesen, Canadian Wildlife Service

Choosing the project that's right for you 2

Virgil Martin: A natural fit 3

Update: Ontario Breeding Bird Atlas 3

Project Descriptions & Contacts 8

Marsh Monitoring Program 4

Red-shouldered Hawk and Spring Woodpecker Survey 5

Ontario Nocturnal Owls Survey 6

Ontario Nest Records Scheme 7

Friends of Wildlife Watchers

The Wildlife Watchers program has received generous support from many conservation organizations.

Our thanks to the following groups for their cooperation.

- Bird Studies Canada
- Bruce Peninsula Hawkwatch
- Canadian Wildlife Service, Environment Canada
- Federation of Ontario Naturalists
- Greater Toronto Region Raptor Watch
- Hawk Cliff Raptor Banding Station
- Long Point Bird Observatory
- Ontario Christmas Bird Counts
- Ontario Ministry of Natural Resources
- Niagara Peninsula Hawkwatch
- Royal Ontario Museum
- Thunder Cape Bird Observatory

Choosing the project that's right for you

It is not always easy to know which project best matches your own interests and experience. The accompanying chart, and the program descriptions on the following pages, can help you to decide. No matter what your level of skill, at least one project is suited to you. Programs such as the **Breeding Bird Survey** require experienced birders; projects like the **Backyard Amphibian Survey** appeal to novices and experts alike (and may even be run without leaving your yard!). Projects range in level of difficulty and in time commitment, but each is designed to be as effective as possible while still being interesting and enjoyable. If you are not already involved, choose one of the following projects. You will be surprised by how much you can learn and contribute.

This chart is also available on-line:
www.on.ec.gc.ca/wildlife/newsletters/choose-e.html

Program	Time Commitment	Skills Required	Location
Amphibian Road Call Counts	3 evenings each spring March to July	Ability to learn about 10 frog calls	7 km routes on back roads; done by car
Amphibian Backyard Survey	3 minutes each evening April to August	Ability to learn about 10 frog calls	Your own backyard
Breeding Bird Atlas	1 or more days spring or summer	Beginner to experienced birders	Anywhere in Ontario
Breeding Bird Survey	1 morning per year June	Ability to identify breeding birds by song and sight	40 km routes on back roads; done by car
Canadian Lakes Loon Survey	Check lake(s) once per month June, July and August	Ability to identify Common Loon; good observational skills	Anywhere in Ontario
Christmas Bird Count	1 day per year near Christmas	Beginner to experienced birders	About 80 cities and towns participate in Ontario
Forest Bird Monitoring Program	2 mornings per year late May or June	Ability to identify forest birds by song and sight	In wooded areas; done on foot
Hawk Watching	1 or more days in spring or fall	Ability to identify raptors; all are welcome to assist	Grimsby, Oshawa, Toronto, Port Stanley, Amherstburg
Marsh Monitoring Program	2 or 3 evenings in spring April to June	Ability to identify frog calls and/or marsh birds	Throughout Ontario; emphasis on marshes in the Great Lakes Basin
Migration Monitoring	Days to weeks (longer term volunteers preferred)	All levels; beginners can be trained over several weeks	Long Point, Thunder Cape
Nocturnal Owl Survey	1 evening in March, 1 evening in April	Ability to identify about 5 owl calls	Central and northern Ontario
Ontario Birds At Risk	Variable, depending on activity	Beginner to experienced birders	Throughout Ontario
Ontario Nest Records Scheme	1 or more visits to an active nest or nests	Ability to identify any bird's (active) nest	Anywhere in Ontario
Ontario Shorebird Survey	4 visits during spring migration, 8 visits in fall	Experienced birders	Throughout Ontario
Project Feeder Watch	Observe twice every 2 weeks November to March	Ability to recognize about 25 common feeder birds	Anywhere in Ontario
Red-shouldered Hawk and Spring Woodpecker Survey	1 morning in May	Ability to identify raptors and woodpeckers by sight and sound; training tape provided	Central Ontario

102-05059/__

VOLUNTEER PROFILE

Virgil Martin: A natural fit

As a youngster, Virgil Martin played with his friends in a "log cabin" they built of old cedar rails on a local woodlot. He never lost interest in this natural space, and remembered it in his early teens when he joined up with the field naturalists. "I had an idea to study and understand this woodlot – perhaps inventory it," he recalls. "It's a place that is special to me."

Years later, the **Forest Bird Monitoring Program** (FBMP) provided the opportunity. It was a natural fit. Virgil began recording data on the Waterloo area woodlot in 1987. He is one of five remaining original FBMP volunteers. In time, he added a second plot, a reforested pine plantation also in Waterloo region.

Virgil works with the Region of Waterloo planning department. He is the author of two books on southern Ontario landscapes, and an expert on mosses, ferns and birds. Along with the FBMP, he surveys for the **Ontario Breeding Bird Atlas** and the **Christmas** Bird Count.

He feels that point counts "force a bit of rigour" into his birding activities. He wonders, if he were casually birding, whether he would notice the same measure of diversity that he has become aware of in his plots over the years. "It's been a really interesting way to see the forest," he says. "It's a way of looking at it that you wouldn't get unless you started to survey. You start to get an idea of some of the dynamics that are going on there."

Golden-crowned Kinglet

Photo: G.K. Peck

He has seen some changes at the Waterloo woodlot. "I have noticed a pervasive human impact. It seems people just can't leave anything alone." He notes traffic noise, horse trails, dumped garbage, and wood cutting as examples of negative influences on the woodlot habitat.

Virgil's second plot, habitat-wise, is very different than the traditional maple beech forest. The plot is productive and home to a broader diversity of species than he expected, including Red-breasted Nuthatch, Indigo Bunting, Pine Warbler, Golden-crowned Kinglet (infrequent in the region), and Chestnut-sided Warbler.

Sunday morning is when Virgil does his counts, when traffic noise usually is low. He always works alone. "I just quite enjoy doing it. The process itself is a kind of meditation. You attempt to put yourself in a space that takes total concentration. I find that after doing it for so many years, my internal clock tells me when the ten minutes is up."

Virgil believes that his contributions gain value from year to year, and when combined with others' input. "It's like going to the polls and voting," he suggests. Any one birder may not make a significant difference, but there is strength in numbers.

By Julie Suzanne Pollock, Canadian Wildlife Service

Update on the Second Ontario Breeding Bird Atlas

The **Second Ontario Breeding Bird Atlas** project got off to a great start in 2001. Around 800 people put in a remarkable 22,000 hours of field work in the first year, contributing a total of over 120,000 records. Already, significant shifts in the distribution of bird populations are emerging, such as the expanding range southward of Common Ravens.

Other birds that appear to be doing well are Merlins, Northern Mockingbirds, Wild Turkeys (released under a Ministry of Natural Resources program), Hooded Warblers, House Finches, and Sandhill Cranes.

Unfortunately, the news isn't all good. Data collection from the first season has revealed other possible trends, such as apparent declines in the abundance of Red-headed Woodpeckers, grassland birds including endangered species such as Henslow's Sparrows, and other endangered species like the Prothonotary Warbler and Loggerhead Shrike.

Almost all the data received to date from 2001 is now on the Atlas Web page where you can summarize it in tabular form or view it on maps. Take a look. You'll find that it's easy to get a good sense of what went on during the first year – and what remains to be done!

Thanks very much to everyone who has contributed to the Atlas to date. For those who would like to learn more about atlassing, the best way to get started is to contact the Regional Coordinator for the area you want to work. A contact list is provided on the Atlas Web site.

By Mike Cadman, Canadian Wildlife Service

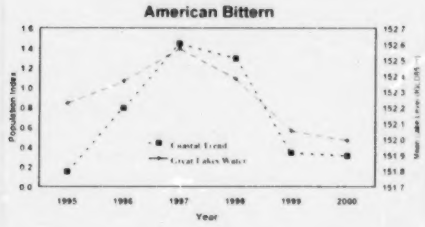
Birds Ontario Web site: www.birdsontario.org

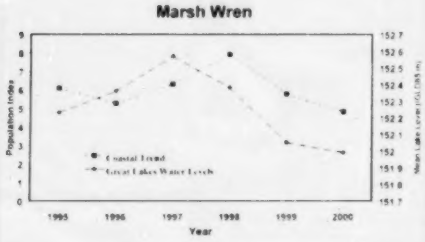
For more information, contact:

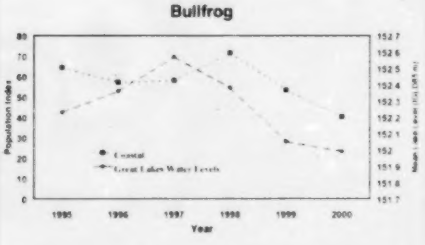
Tel: (519) 826-2094 E-mail: mcadman@uoguelph.ca

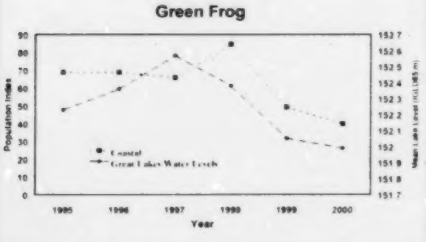
Marsh Bird and Amphibian Trends and Great Lakes Water Levels

Figure 1. Basin-wide trends in relative abundance (birds) and occurrence (amphibians) compared to mean annual Great Lakes water levels from 1995-2000. For each species, trends are presented for marshes monitored at coastal locations (i.e. within 5 km from a lakeshore).









Since 1995, volunteers of the **Marsh Monitoring Program (MMP)** administered by Bird Studies Canada have monitored bird and amphibian communities in marshes across the Great Lakes Basin. MMP route positions within marshes are fixed, whereas marshes have the capacity to move in response to water level changes, especially along Great Lakes shorelines.

Great Lakes water levels vary through time. Following a period of sustained high water levels, the Great Lakes entered a low water period in 1998. Water is the quintessential element that defines a marsh. Changes in water levels affect composition and distribution of marsh plants, which in turn influence the abundance and distribution of bird and amphibian species.

This variability provides an opportunity to assess how local marsh-dependent fauna responded to such changes. The figure below illustrates how some marsh species reacted to varying Great Lakes water levels. Caution is required in interpreting these trends. Although real population change may have occurred, alternately the population remained stable but there was an increase of individuals dispersing in or out of MMP survey routes.

As lake levels declined, however, some coastal marsh sites did show declining trends in highly aquatic marsh species that may reflect real population declines. In these instances, appropriate marsh habitat was not replaced at the rate at which it was lost, such as where the lake bottom profile is steep, and appropriate marsh habitat was not available or was already at peak carrying capacity.

The delayed nature of population trends in some marsh species in relation to lake levels, such as Marsh Wren, bullfrog and green frog, is not overly surprising. Species' trends might not respond immediately to shifts in lake levels but could lag behind as the plant community alters and fewer or more breeding individuals subsequently enter the population. The more direct trend response to water levels for American Bittern may be indicative that immigration-emigration, rather than differential recruitment, better explains this particular species' trend-lake level relation.

Because lake levels fluctuate, and because trends in certain marsh bird and amphibian species at coastal marshes appear to respond to changing lake levels, when lake levels begin to rise again, species trend responses should continue to be detected by MMP data. By taking into account the dynamic nature of coastal marsh habitat and how water availability affects these dynamics, we are able to evaluate changes in marsh bird and amphibian populations inhabiting these unique wetland environments of the Great Lakes basin.

Visit Bird Studies Canada's Web site to view the MMP Web page and download a more detailed report with updated marsh bird and amphibian trend results, and how these trends relate to Great Lakes water levels.

MMP Web page:
www.bsc-eoc.org/mmpmain.html

By Steve Timmermans, M.Sc., Aquatic Surveys Scientist, Bird Studies Canada

Contact

Steve Timmermans
Tel: 1-888-448-BIRD or (519) 586-3531
Fax: (519) 586-5352
E-mail: aqsurvey@bsc-eoc.org
Web site: www.bsc-eoc.org

Bird Studies Canada
P.O. Box 160
Port Rowan, ON N0E 1M0

Roadside Research

Since 1990, volunteers of the **Red-shouldered Hawk and Spring Woodpecker Survey** have been conducting annual surveys on one day in late April or early May. The program is coordinated by Bird Studies Canada, in partnership with the Wildlife Assessment Program from Ontario Ministry of Natural Resources.

When people first hear about the survey, they often ask: ***What is the connection between hawks and woodpeckers?*** Why design a survey specifically aimed at monitoring two such divergent groups of birds?

There are good reasons for including these groups in a common survey. Both Red-shouldered Hawks and woodpeckers are early spring nesters and their breeding activities are often undetected by other roadside surveys conducted in late spring or early summer. Red-shouldered Hawks, Pileated Woodpeckers and Yellow-bellied Sapsuckers all require large, mature forests for breeding and foraging, and thus are good indicators of how forest management practices affect woodland quality. Additionally, Red-shouldered Hawks are designated as a species of Special Concern by COSEWIC, the Committee on the Status of Endangered Wildlife in Canada.

By Jessie Allair and Debbie Badzinski,
Bird Studies Canada

Visit Bird Studies Canada's Web site to view the Red-shouldered Hawk and Spring Woodpecker Survey Web page:

www.bsc-eoc.org/rsha.html

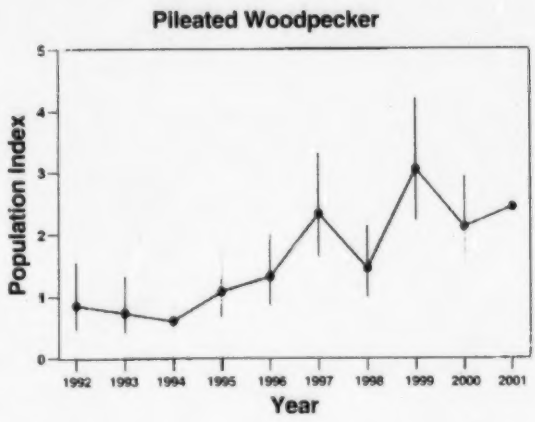


Figure 1. Annual population indices for Pileated Woodpeckers (1992-2001) using data collected by volunteers participating in the Red-shouldered Hawk and Spring Woodpecker Survey.

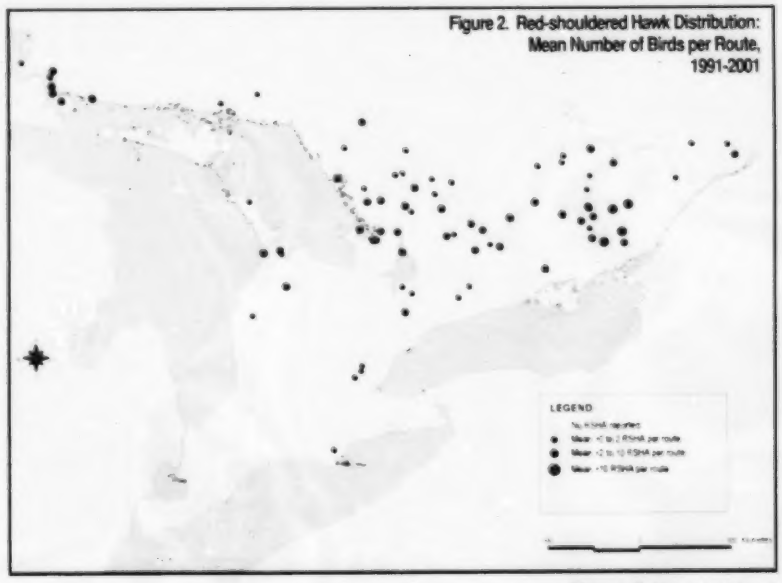


Figure 2. Red-shouldered Hawk Distribution: Mean Number of Birds per Route, 1991-2001.

Contact

Debbie Badzinski

Tel: 1-888-448-BIRD or
(519) 586-3531
Fax: (519) 586-5352
E-mail: dbadzinski@bsc-eoc.org
Web site: www.bsc-eoc.org

Bird Studies Canada
P.O. Box 160
Port Rowan, ON N0E 1M0

Owls, owls, everywhere!

This past year, participants in the **Ontario Nocturnal Owl Survey** could hardly believe their eyes ... and ears. Owls were everywhere! In 2001, owl surveyors recorded an amazing 929 owls of nine different species. This was, by far, the greatest number of owls recorded since the survey began in 1995.

The species that showed the most marked increase was the Boreal Owl. Although usually considered relatively uncommon in northern Ontario, this past season Boreal Owls really came out of the woodwork – or the woods, in this case (see Figure 1). The mean number of Boreal Owls recorded per route jumped from 0.7 in 2000 to 2.7 in 2001.

This population increase was great news to biologists at Bird Studies Canada. In 2000, Boreal Owls declined to their lowest levels since the survey began. Thankfully, it appears that Boreal Owls were going through a natural population cycle. Populations of some northern owl species tend to fluctuate in response to availability of prey such as mice, voles, and lemmings. So there must have been an abundance of prey in 2001 to account for such a substantial increase.

Long-term data gathered by Ontario Nocturnal Owl surveyors may help us to better understand these population cycles. The primary goal of the owl survey is to monitor the numerical status of owls in Ontario. However, the data is also valuable for answering basic questions about owl ecology: What type of habitat do different owl species prefer? Are owls affected negatively by logging practices? How are owls distributed throughout Ontario?

The Ontario Nocturnal Owl Survey is coordinated by Bird Studies Canada in partnership with the Ontario Ministry of Natural Resources' Wildlife Assessment Program. Volunteer owl surveyors conduct nocturnal roadside surveys across central and northern Ontario on a single evening in April. Participants provide their own vehicle, portable stereo, compass and flashlight.

Anyone can participate in the survey – we will provide a training tape so that you can learn the different owl calls. What is required from you is a keen interest in owls and the willingness to venture out one night per year to survey owls.

By Debbie Badzinski
Bird Studies Canada

Boreal Owl

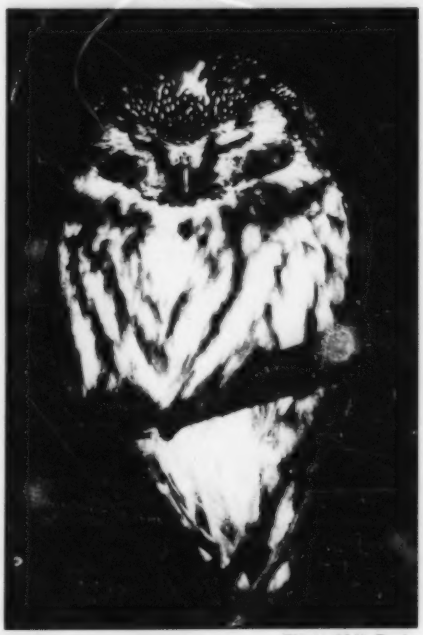


Photo: M.K. Peck

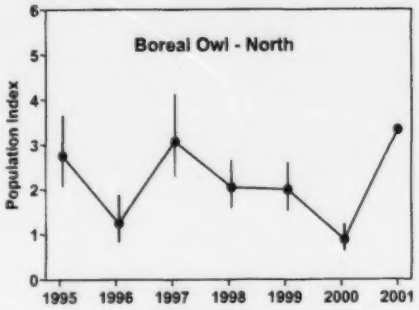


Figure 1. Annual population indices for Boreal Owls in Northern Ontario from 1995-2001. The population reached its lowest level in 2000, then increased dramatically in 2001.

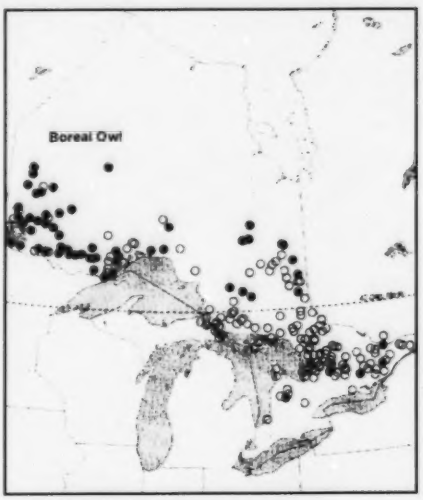


Figure 2. Distribution of Boreal Owls detected on Ontario Nocturnal Owl Surveys in 2001. Closed circles are routes that detected Boreal Owls and open circles are routes that did not detect this species. This map shows that Boreal Owls are most common in northwestern Ontario.

Contact

Debbie Badzinski
Tel: 1-888-448-BIRD or
(519) 586-3531
Fax: (519) 586-5352
E-mail: dbadzinski@bsc-eoc.org
Web site: www.bsc-eoc.org

Bird Studies Canada
P.O. Box 160
Port Rowan, ON N0E 1M0

Reflections on a year of changes

The unique and amazing diversity of birds' nest and eggs has long been a source of fascination to naturalists. The lure of the search for these nests, coupled with the value of the information gained, accounts for the continuing cooperation of the many contributors who have made the **Ontario Nest Records Scheme (ONRS)** one of the most important avian monitoring programs in the province.

Loggerhead Shrike

Photo: G.K. Peck

RECENT HIGHLIGHTS

Eared Grebe - *the fourth provincial nest of this species was found in 2001 in Rainy River District.*

Bald Eagle - *20 active nests were reported from southern Ontario in 2000.*

Marbled Godwit - *an adult with young, sighted near Rainy River in 2001, was the third breeding record for Ontario.*

Great Black-backed Gull - *the first Simcoe Co. nest was reported in 2000 on Nottawasaga Island, Georgian Bay.*

Western Kingbird - *the fourth provincial nest was found in 2001 in Rainy River District.*

Acadian Flycatcher - *15 nests of this endangered, Carolinian species were found in 2000 in four southwestern counties.*

Loggerhead Shrike - *two nests of this declining, endangered species were reported in 2000 from each of Bruce Co. & Manitoulin District.*

In 2002, we will be in our 47th nesting season and our database is now in excess of 120,000 nest records. Computer entry of these records is rapidly continuing and will soon allow easy access to the wealth of environmental information. Beginning in the spring of 2001 we introduced a new scannable nest card, which will greatly facilitate computer entry of all current nest data.

To complement the new card, an instruction manual, the ONRS Handbook, and an 8-sided Coding System card have been produced for distribution to contributors. The Handbook, in particular, should help allay fears of possible disturbance to nesting birds and, in addition, provide many helpful hints for finding nests and recording data.

Although we are in urgent need of contributors, we have been gratified by the recent increase in nest card contributions, due in part to our close and mutually advantageous association with the second **Ontario Breeding Bird Atlas**, that commenced in 2001. Each atlasser has been supplied with nest cards, the ONRS Handbook, and a Coding System card for reference when making out nest cards. It is imperative that all nests found during the Atlas survey be recorded on nest cards, to update and help fill in gaps in our database.

Nest cards, instructional material and annual reports are supplied to contributors upon request, and completed cards are returned for processing, computer entry and storage. On-line entry of nest records via computer is now possible. As well, annual reports, the instruction manual, and other published information can be downloaded from the Birds Ontario Web site.

Visit Birds Ontario on-line to view or download Ontario Nest Records Scheme information: www.birdsontario.org.

By George K. Peck

Contact

George K. Peck

Tel: (416) 586-5523
E-mail: markp@rom.on.ca
Web site: www.birdsontario.org

ONRS/Ornithology
Centre for Biodiversity and
Conservation Biology
Royal Ontario Museum
100 Queen's Park
Toronto, ON M5S 2C6

Wildlife Watchers Project Descriptions & Contacts

For more complete descriptions of each program, please visit the following URL: www.on.ec.gc.ca/wildlife/newsletters/choose-e.html.

Amphibian Call Counts
Glenn Barrett
Tel: (905) 336-4952
Fax: (905) 336-6434
E-mail: Glenn.Barrett@ec.gc.ca
Web site: http://wildspace.ec.gc.ca/project.cfm
Canadian Wildlife Service
Environment Canada
867 Lakeshore Road, Box 5050
Burlington, ON L7R 4A6

Breeding Bird Survey
Debbie Badzinski
Bird Studies Canada *
E-mail: dbadzinski@bsc-eoc.org

Canadian Lakes Loon Survey
Kathy Jones
Bird Studies Canada *
E-mail: aqsurvey@bsc-eoc.org

Christmas Bird Count
Contact your local naturalist club to find the CBC coordinator in your area. $5 participation fee.
Web site: www.birdsource.org

Forest Bird Monitoring Program
Tel: (613) 941-5913
Fax: (613) 952-9027
E-mail: FBMP@ec.gc.ca
Web site: http://wildspace.ec.gc.ca/project.cfm
FBMP - Canadian Wildlife Service
Environment Canada
49 Camelot Drive
Nepean, ON K1A 0H3

Hawk Watching
Holiday Beach (Sept. 1-Nov. 30)
E-mail: raptor@webbernet.net
Web site: www.wincom.net/~erca
Holiday Beach Conservation Area
County Road 50, Essex County, ON

HBMO
Bob Pettit, President
23393 Meadows Avenue
Flat Rock, MI USA 48134

Greater Toronto Raptor Watch (Sept. 1-Dec. 31)
E-mail: jbarker@interlog.com
John Barker, GTRW Chair
4101 Westminster Place, #55
Mississauga, ON L4W 4X4

Niagara Peninsula (Mar. 1-May 15)
Beamer Conservation Area
Ridge Road, Grimsby, ON
Glenn Barnett
87 Highland Park Drive
Dundas, ON P9H 6G5
Web site: www.hwcn.org/link/niaghawk

Marsh Monitoring Program
Kathy Jones
Bird Studies Canada *
E-mail: aqsurvey@bsc-eoc.org

Migration Monitoring Program
Landbirds Programs Coordinator
Bird Studies Canada * / Long Point Bird Observatory
E-mail: lpbo@bsc-eoc.org

Nick Escott, TCBO Chair
Thunder Cape Bird Observatory
Tel: (807) 345-7122
Fax: (807) 344-1911
E-mail: escott@loon.norlink.net
133 South Hill Street
Thunder Bay, ON P7B 3T9

Nocturnal Owl Survey
Debbie Badzinski
Bird Studies Canada *
E-mail: dbadzinski@bsc-eoc.org

Ontario Birds At Risk
Debbie Badzinski
Bird Studies Canada *
E-mail: dbadzinski@bsc-eoc.org

Ontario Breeding Bird Atlas
Mike Cadman
Tel: (519) 826-2094 or 1-866-900-7100
Fax: (519) 826-2113
E-mail: mcadman@uoguelph.ca
Web site: www.birdsontario.org
Ontario Breeding Bird Atlas
Mike Cadman
c/o University of Guelph
Blackwood Hall, Room 211
Guelph, ON N1G 2W1

Ontario Nest Records Scheme
George Peck
Tel: (416) 586-5523
Fax: (416) 586-5863
E-mail: mpeck@rom.on.ca
Web site: www.birdsontario.org
ONRS/Ornithology
Centre for Biodiversity and Conservation Biology
Royal Ontario Museum
100 Queen's Park
Toronto, ON M5S 2C6

Ontario Shorebird Survey
Ken Ross / Barbara Campbell
Tel: (613) 952-2415
Fax: (613) 952-9027
E-mail: Barbara.Campbell@ec.gc.ca
Web site: http://wildspace.ec.gc.ca/project.cfm
Canadian Wildlife Service
Environment Canada
49 Camelot Dr.
Nepean, ON, K1A 0H3

Project Feederwatch
Becky Whittam
Bird Studies Canada *
E-mail: dbadzinski@bsc-eoc.org

Red-Shouldered Hawk and Spring Woodpecker Survey
Debbie Badzinski
Bird Studies Canada *
E-mail: dbadzinski@bsc-eoc.org

*** Bird Studies Canada** Tel: 1-888-448-BIRD or (519) 586-5352 Fax: (519) 586-5352 Web site: www.bsc-eoc.org P.O. Box 160 Port Rowan, ON N0E 1M0

For additional copies of this report, contact:

Canadian Wildlife Service
Environment Canada (Ontario Region)
4905 Dufferin Street
Downsview, ON M3H 5T4

Tel: (416) 739-5830
E-mail: Wildlife.Ontario@ec.gc.ca

Available on-line: **www.on.ec.gc.ca/wildlife.**
Click on Publications. All publications are available in both HTML and PDF format, for accessibility and convenience.

For more information, contact:

Tel: (519) 826-2094
E-mail: mcadman@uoguelph.ca

Published by Authority of the Minister of Environment

© Minister of Public Works and Government Services Canada, 2002

Catalogue No. CW66-146/2002E

ISBN 0-662-31976-1

This report was prepared and edited by
Lyle Friesen and Julie Suzanne Pollock.

Egalement disponible en francais sous le titre:
Les observateurs de la faune - Bulletin sur la surveillance

Canada